

## THE MAGIC MOTHER

The Magic Mother is a very versatile expansion motherboard for the Commodore VIC-20 computer. It offers more features than any other comparably priced unit. Many of its features are not available on competing products.

The Magic Mother will accept any VIC-20 compatible cartridge including RAM cartridges up to 32K bytes. The Magic Mother allows the use of multiple memory expansion cartridges at the same time yielding VIC-20 configurations of up to 40K bytes of RAM (Random Access Memory). VIC-20 imposed restrictions limit access to 29K when using BASIC. Machine language subroutines and BASIC PEEK functions and POKE statements can access RAM memory beyond the 29K limit. Space for up to 6 cartridge slots is available on the board. However, the user may start with a minimum configuration of 1 slot and build up the board as his needs increase. Each slot may have an optional set of mapping switches which offers a surprising variety of capabilities for cartridge addressing. An optional set of write enable switches permits individual write control for each cartridge slot. The Magic Mother also allows selection of one of a number of ROM (Read Only Memory) cartridges which are plugged into the board.

Perhaps the most unique feature of the Magic Mother is its cartridge mapping capabilities. The Magic Mother bus expansion board can completely change the way various RAM and ROM cartridges get mapped into blocks 1, 2, 3 and 5. If several cartridges are competing for the same address block, the mapping switches may be used to relocate one or more cartridges so they no longer have conflicting addresses. Of course, relocating a cartridge containing ROM still allows its contents to be read but renders its code nonexecutable since most machine language programs are memory address dependent. Memory cartridges can be left unmapped and may be remapped during system operation without altering their contents.

The VIC-20's address lines are buffered to prevent them from being excessively loaded when a number of cartridges is used.

High quality construction is used including gold plating on all connectors.

On board power supply artwork permits several methods of supplying power to the motherboard and a variety of power options for experimental circuits of your own design. In any case, the VIC-20 is fuse protected from overloads by a 1/2 amp fuse located on the Magic Mother.

An optional reset button restarts the VIC-20 just as if the power switch had been cycled but without the strain on the computer of an actual power down and up and without the loss of data stored in write disabled RAM cartridges.

The fully illustrated manual is divided into two parts. Part 1 is a user's guide and describes the concepts and procedures of operation. Part 2 is a construction guide, containing assembly procedures, configuration procedures, a parts list, and a troubleshooting section.

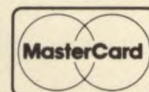
Other features include an experimenter's zone with extra switches, a buffer, special power supply options, and easy access to more than 80 useful signals. Details of each of these and other experimenter's features are described in "The Magic Mother Experimenter's Guide", which is available separately from the Xentek corporation.

NOTE: The Magic Mother can be used to make copies of the contents of the ROM memories in most cartridges for the Commodore VIC-20 computer. It can also be used to load such saved copies into RAM cartridges for subsequent execution by the VIC-20 with the original cartridge no longer present. In some cases, such acts may be in violation of copyright laws. The Magic Mother is intended as an effective tool for users who wish to control VIC-20 systems with expanded capabilities and for software developers, particularly those generating machine language programs and/or cartridge software. As a producer of computer accessories, including software, Xentek Corporation certainly does not encourage software piracy.





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Dear Fellow Commodore User:

This is to introduce you to the "Magic Mother", a VIC-20 6 slot Bus Expander Board. We believe this product is the most advanced VIC-20 bus expander on the market today.

This product is available in three configurations-as a bare board only (with manual), as a kit with parts to produce a complete 6 slot motherboard with mapping and write controls (does not include parts for on board power supply option), and as a fully assembled and tested unit (less on board power supply option). The enclosed material describes the features of the "Magic Mother".

The prices are as follows:

Bare Board	\$42.95
Kit	\$84.95
Assembled unit	\$97.95

Quantity discounts are available.  
Ohio residents add 5-1/2% sales tax. Please add \$3.00 per board for postage and handling on orders less than \$400.00. Visa and Mastercard accepted. (Personal checks allow two weeks to clear.)

Many users have indicated their amazement at the usefulness of the Magic Mother. The Magic Mother Assembly and Operation manual is available separately for \$2.85 deductible from the first order.

Thank you very much for your consideration of this product. If you have any questions please feel free to contact us again.

Sincerely,

*Richard E. Considine*

Richard E. Considine  
Sales Manager

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